



# ***The Bose® 701 Direct/Reflecting® Series II Speakers***

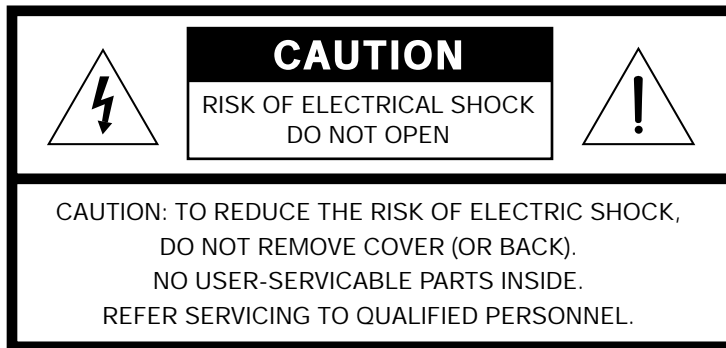
***Owner's Guide***

***October 25, 2001***

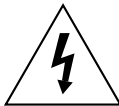
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## Important Safety Information

 **WARNING:** To reduce the risk of fire or electric shock, do not expose the system to rain or moisture.



These CAUTION marks are located on the back panel of your 701® speakers:



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the system enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle, as marked on the speakers, is intended to alert the user to the presence of important operating and maintenance instructions in this owner's guide.

 **CAUTION:** To prevent electric shock, match wide blade of plug to wide slot, insert fully.



**Note:** This music system is not intended for use in moving vehicles.



**WARNING:** No naked flame sources, such as lighted candles, should be placed on the apparatus.

### **Additional safety information**

See the additional instructions on the additional *Important Safety Information* page enclosed with this owner's guide.

### **Please read this owner's guide**

Please take the time to follow this owner's guide carefully. It will help you set up and operate your 701 speakers properly. Save your owner's guide for future reference.

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## Warranty

Bose® 701® Direct/Reflecting® speakers are covered by a limited 5-year transferable warranty. The built-in amplifier and electronic components are covered by a 1-year warranty. Details of the coverage are provided on the warranty card that came with your speakers. Please fill out the information section on your card, detach, and mail to Bose.

## For your records

The serial number is located on the label on the back of each speaker.

Serial numbers: \_\_\_\_\_ and \_\_\_\_\_

Dealer name: \_\_\_\_\_

Dealer phone: \_\_\_\_\_ Purchase date: \_\_\_\_\_

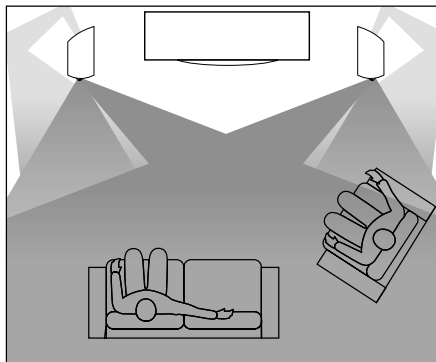
We suggest you keep your sales slip and warranty card together with this owner's guide.

### Introduction

Your 701® Direct/Reflecting® speakers re-create a natural balance of reflected and direct sound energy for a lifelike, spacious performance. As with all Bose® products, their design is meant to bring you high-quality concert-like sound.

**Figure 1**

*A natural balance of direct and reflected sound.*



### Unpacking the speakers

Carefully unpack the contents of the shipping carton.

- Individually remove each speaker.
- Retain the packaging material for possible future use.
- If either speaker appears damaged, do not use it. Repack both speakers in the original carton and notify your authorized Bose dealer immediately.

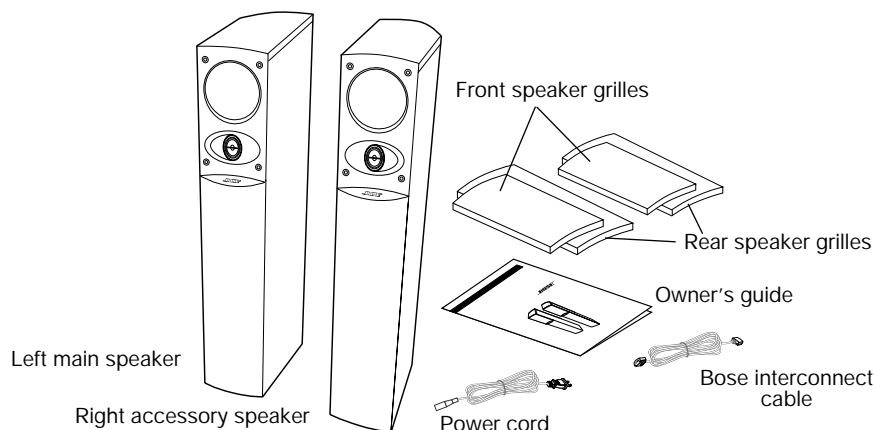
**WARNING:** To avoid danger of suffocation, keep the plastic bags that wrap these speakers out of the reach of children.

**WARNING:** The left main speaker weighs 50 lb (22.7 kg) and the right accessory speaker weighs 45 lb (20.4 kg). Use good lifting practice to avoid injury.

**Figure 2**

*Package contents:*

- 1 left main speaker
- 1 right accessory speaker
- Owner's guide
- Power cord
- Bose interconnect cable
- Two front speaker grilles
- Two rear speaker grilles



### Attaching the speaker grilles

Each speaker has both a front and a rear protective grille. The rear grille is the larger of the two. To attach these grilles to your speakers, line up the top curve of the grille so that it matches the curve of the speaker. Align the pins on the back of the grille to the mounting holes on the speaker cabinet and gently push the grille straight on.

**CAUTION:** To prevent any damage to the speakers or electronics, be sure to keep the rear grilles on at all times. Do not place objects into any opening on the speaker cabinets.

## Placing the speakers

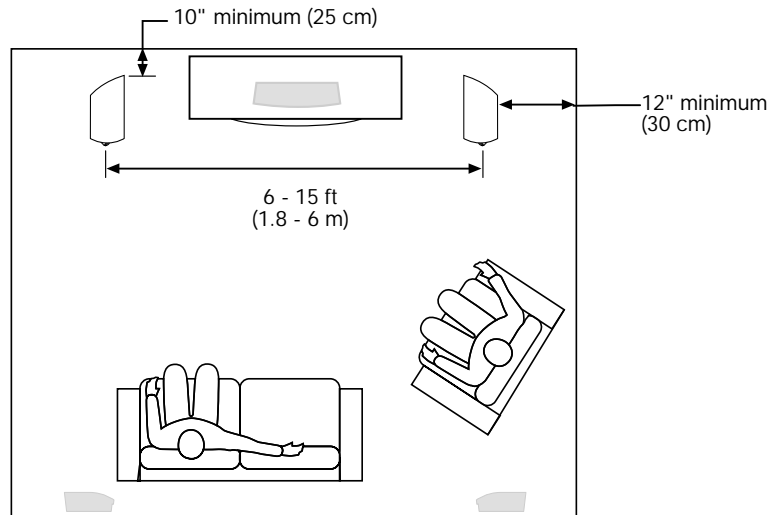
The product label on the back of each speaker indicates LEFT or RIGHT. For best acoustic performance, place the left speaker on the left side as you face the front of your room and place the right speaker on the right side of your room.

Keep the speakers 6 - 15 feet (1.8 - 6 m) apart and at least 12 inches (30 cm) from side walls (see Figure 3).

It is important not to block the acoustic components at the rear of each speaker. To avoid this, place each speaker 10 inches (25 cm) from the wall behind it.

**Figure 3**

*Ideal speaker placement*



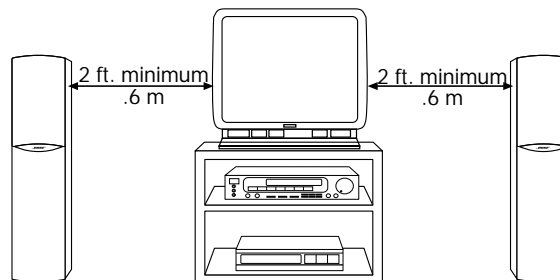
🎵 **Note:** Bose® 701® speakers are not intended to hang from walls, or to stand on shelves or tables. They are designed as floor-standing speakers only.

⚠️ **WARNING:** To prevent personal injury, do not place your speakers in high-traffic areas where they can be accidentally knocked over.

🎵 **Note:** To prevent interference with your TV picture quality, place each speaker at least 2 feet (.6 m) from your TV screen.

**Figure 4**


*Place each speaker at least 2 feet (.6 m) from your TV screen.*



### Choosing the speaker cord

It is important to use the proper gauge (thickness) of speaker cord. Standard zip cord (2-conductor, 18-gauge or .82 mm<sup>2</sup> wire or larger) is recommended for most applications. You can find this wire at most electrical and hardware stores.

If the length of speaker wire extends more than 30 feet (9 m) from a receiver or amplifier, refer to "Wire recommendations" on page 11 or contact your authorized Bose® dealer for more information.

 **Note:** If you require longer cable runs, or have speaker wire already installed in the wall, the Bose AC-7 adapter kit is available to accommodate this. The kit will also allow for the use of a larger gauge speaker wire. Refer to the enclosed list for correct phone numbers to order PN262061.

#### **Running the speaker cord through a wall or under a floor**

Make sure you have enough cord to reach from the receiver to the left main speaker. The Bose interconnect cable is not intended for in-wall installation. For in-wall installation, check your local building code requirements. Before proceeding, you may want to contact an electrical installer for information about your local building or safety regulations.

#### **Preparing the speaker cord**

Speaker cord consists of two insulated wires. The insulation around one wire is marked (striped, collared, ribbed, or may have writing on it). This marked wire is always positive (+). The plain wire is always negative (-). These wires correspond to the red (+) and black (-) terminals on the speaker, receiver, or amplifier.

 **Note:** It is sometimes difficult to distinguish wire markings. Inspect both wires carefully.

To prepare the ends of the cord, strip approximately  $\frac{3}{8}$  to  $\frac{1}{2}$  inch (12 mm) of insulation from both wires. Then, twist the bare ends of each wire so there are no loose strands of wire.


 **WARNING:** Never use broken or frayed wiring, as damage or electrical shock may result.

### Making the connections

Your 701® speaker system connects differently from conventional speaker systems. Both the LEFT and RIGHT outputs from your receiver or amplifier must connect to the left main 701 speaker. Please follow the connection instructions carefully to ensure proper performance. Figure 5 on page 7 indicates how the speakers are connected to the receiver.

#### **Connecting to the receiver**

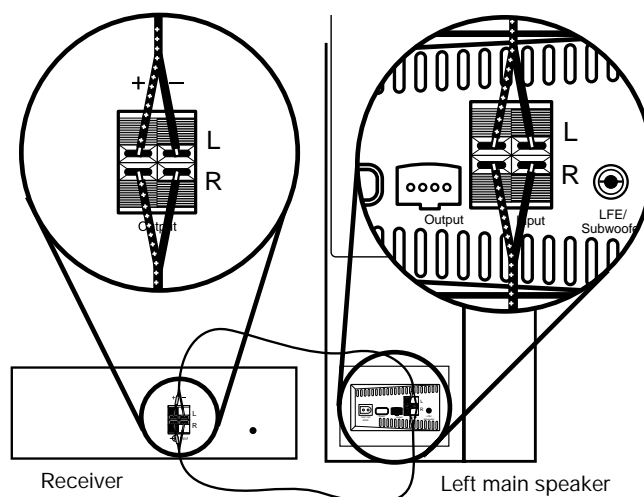
Connect your speaker wire to the SPEAKERS A or MAIN (front) left and right speaker outputs on your amplifier or receiver. See your receiver owner's guide for any additional information or instructions.

 **CAUTION:** Before making any connections, turn off your receiver and unplug it from the AC power mains. Failure to do so may result in damage to your system.

## Making the connections (cont.)

**Figure 5**

Wiring schematic



Press down the terminal tab on the bottom of the left main speaker to insert the appropriate wire (Figure 5).

1. Connect one cord to the left speaker output of your receiver or amplifier.
  - A. Insert the marked wire at one end to the red (+) terminal.
  - B. Insert the plain wire at that end to the black (-) terminal.
2. Connect the other end of the cord to the left (L) main speaker terminals (Figure 5).
  - A. Insert the marked wire into the red (+) terminal.
  - B. Insert the plain wire into the black (-) terminal.
3. Repeat steps 1 and 2 for the right (R) speaker connections.

**Note:** The right speaker outputs are located on the left main speaker directly below the left speaker outputs. They are labeled with an R.

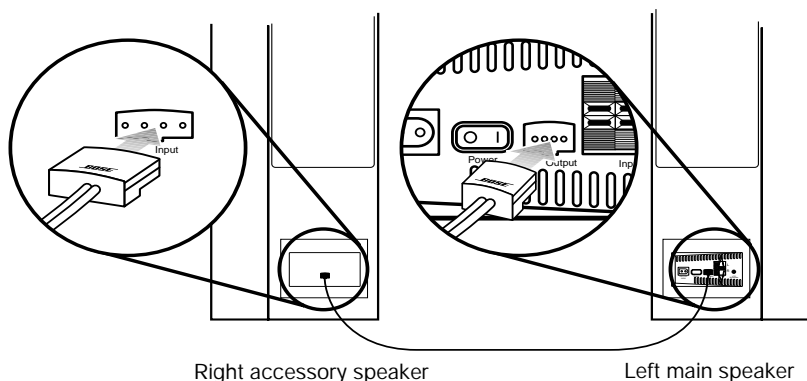
### Connecting the right accessory speaker to the left main speaker

Use the supplied Bose® interconnect cable to make this connection. It is important to note the connector at each end is designed to be inserted in one orientation only. Match the curved top of the connector to the curved top of the jack on the rear connector cups.

**CAUTION:** Never connect the right accessory speaker directly to a receiver output. Always connect the right accessory speaker to the left main speaker, then connect the left main speaker to the receiver.

**Figure 6**

Connecting the right accessory speaker to the left main speaker

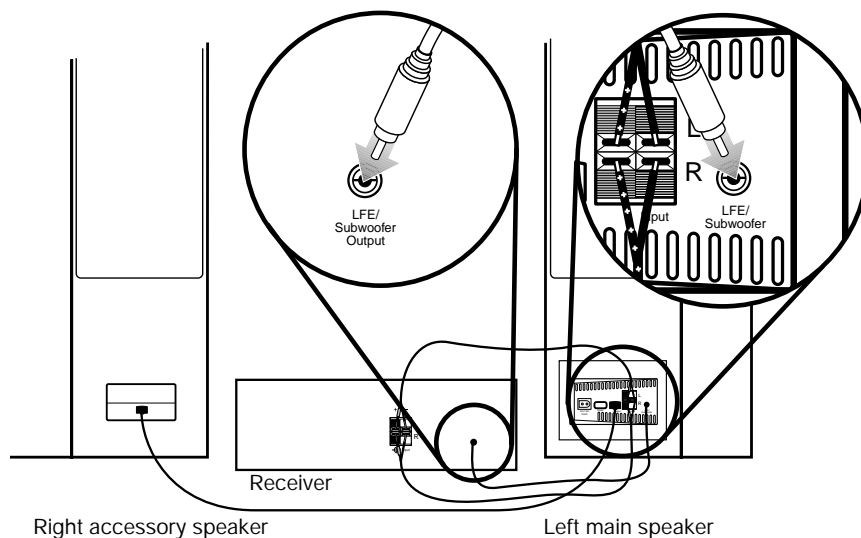


## Connecting the LFE subwoofer input

If your receiver or amplifier has a Subwoofer or Low Frequency Effects (LFE) channel output, use a single RCA male to RCA male patch cord to make the connection. Connect the "LFE/Subwoofer" input on the left main speaker to the LFE/subwoofer output of your receiver or amplifier (Figure 7). Refer to the LFE level control section on page 9.

**Figure 7**

Connecting the LFE input to your receiver



**Note:** Now is a good time to record the serial numbers of these speakers on page 3 of this guide and on your warranty card.

## Checking the connections

Check all the connections from the receiver to the left main speaker and from the left main speaker to the right accessory speaker. Make sure all the wires are connected in phase (+ to + and - to -).

Correct any wiring problems before you plug in your receiver or speakers and turn them on.

## Plugging in the left main speaker

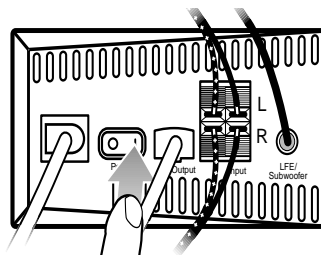
Once you have checked all the connections, insert one end of the supplied power cord to the "Power" jack on the left main speaker. Insert the other end of the power cord into an AC power mains. Plug your receiver or amplifier back into the AC power mains. Then, turn on the left main speaker power switch (Figure 8). Turning the power switch on puts the speakers in a standby mode. Finally, turn on your receiver or amplifier power switch.

During normal use, the left main speaker power switch should be left on and the system should be controlled through the receiver. However, if the speakers will not be used for an extended period of time, you should turn the left main speaker power switch off.

**Note:** The left main speaker power switch must be turned on for the speakers to work properly. If it is not turned on, there will be no bass.

**Figure 8**

Turning on the left main speaker power switch





### Setting your non-digital receiver

After making the connections, you may try additional surround sound modes that your receiver may have. These modes may have different names depending on the manufacturer, e.g. ACTION, MOVIE, THEATER. Select the settings for music, movies, or both that sound best in your listening environment. See your receiver/amplifier owner's guide for additional information on selecting settings.

**⚠ CAUTION:** 701® speakers incorporate an automatic protection circuit, which guards against most kinds of damage from electrical stress or overload. This circuit activates at high volume levels to reduce output, causing a slight decrease in volume. You may also notice light coming from inside the speaker cabinet. This is normal operation and indicates that power input may be exceeding safe levels. Sustained listening at these levels is not recommended.

### Setting your digital receiver

Your speakers are fully compatible with the output from most receivers containing digital technology. The table below suggests the recommended settings. Because they are full-range speakers, select LARGE on the digital screen menu. Turn the subwoofer and the LFE (low frequency effects) on. The preferred crossover setting should be 150 Hz.

<b>Speaker</b>	<b>Receiver setting</b>
Left and right front	LARGE
Center	SMALL
Surround	SMALL
Subwoofer	ON
LFE	ON

## Bass and LFE controls

Your left main speaker has two control knobs – one for bass control and one for LFE control. Follow the instructions below for using these controls.

### Bass control

The bass control, located on the outside of the left main speaker, can help you customize the speakers to your listening room. Turning the control to the right will add bass to the sound in rooms that might be characterized as too shrill. Turning the control to the left will “brighten” the sound of the listening room. As with LFE control, you may find the factory setting to be completely appropriate for your listening room.

### LFE level control

The LFE control, located on the outside of your left main speaker, increases or decreases the relative level of low frequency effects on movie sound tracks. Use it to regulate the presence of these underlying deep bass sounds. You may find it unnecessary to adjust this control. The factory, or detent, setting is appropriate for a majority of listening situations.

## Troubleshooting

If you are experiencing problems with your 701® speakers:

1. Turn off the amplifier or receiver and check all the connections between the speakers, amplifier, or receiver.
2. Check your amplifier or receiver owner's guide, since other components may be the cause of the problem.
3. Use the chart below as troubleshooting guidelines. If this does not solve the problem, contact your authorized Bose® dealer to arrange for service. Refer to the enclosed list for correct phone numbers.

<b>Problem</b>	<b>Possible cause</b>	<b>How to find out</b>	<b>Solution</b>
One speaker doesn't play or sounds distorted	Defective amplifier or receiver channel, or defective speaker	Switch the LEFT and RIGHT input connections on the back of your left main speaker.	If the previously "broken" speaker now plays properly, and the other one does not, one channel in the amplifier or receiver is probably defective. If the original speaker still does not play properly, call Bose or your retailer to arrange for service.
Both speakers do not play, or sound distorted	Defective amplifier or receiver	Disconnect the amplifier or receiver from the speakers.	Reconnect the speakers to another amplifier or receiver that is working properly.
High sound volume drops suddenly	The automatic protection circuit has activated to protect the speakers from electrical stress or overload	Lower the volume. If it returns to normal, your speakers' automatic protection circuit caused the sudden drop. This volume reduction protects the speakers from electronic stress and overload.	Return the volume to a reasonable level and avoid extremely high volume settings.
No bass	Left main speaker is not plugged in or the power switch is not turned on	Check all connections – especially AC power.	Be sure all connections are made and the amplifier/receiver is on.
Weak bass	Subwoofer/LFE level or bass level set too low	Check knob positions on the left main speaker. Check receiver settings.	Adjust knob positions to desired setting.
Distorted sound or diminished sound quality	Out-of-phase wiring	Check connections. They should be in phase (+ to + and – to –).	Adjust connections, if they are out of phase.

## Technical Information

### Power rating

USA/Canada: 120V ~ 50/60 Hz, 260 W

Europe/Australia: 220-240V ~ 50/60 Hz, 260 W

### Features

- Direct/Reflecting® speaker technology
- Stereo Everywhere® speaker technology
- Automatic protection circuitry
- Syncom® computer quality control

### Speaker driver complement

- One 8" (20.3 cm) woofer per cabinet
- One 6½" (16.5 cm) mid-range driver per cabinet
- One 2" (5.1 cm) ferrofluid-cooled tweeter
- One 3" (7.6 cm) tweeter per cabinet

### Compatibility

Compatible with A/V receivers and amplifiers rated from 10 to 300 watts per channel, rated from 4 to 8 ohms.

### Finish

- Deep charcoal
- Natural wood grain

### Dimensions/Weight

39"H x 8"W x 16½"D (99 cm x 20 cm x 42 cm)

Left main speaker is 50 lb (22.7 kg); right accessory speaker is 45 lb (20.4 kg)

### Wire recommendations

Based on maximum frequency response deviation of 0.5 dB

<b>Gauge</b>	<b>Length</b>
18 (0.82 mm <sup>2</sup> )	20 ft (6 m) maximum
16 (1.3 mm <sup>2</sup> )	30 ft (9 m) maximum
14 (2.1 mm <sup>2</sup> )	50 ft (15 m) maximum
12 (3.3 mm <sup>2</sup> )	80 ft (24 m) maximum

## Customer service

For additional help in solving problems, contact Bose® customer service. See the enclosed list of Bose customer service offices and phone numbers.

## Cleaning

Wipe the 701® speaker cabinets using a dry cloth. Do not use solvents or chemicals. Do not allow liquids to spill on or objects to drop into the speaker grilles. You may vacuum the grilles carefully; the drivers are directly behind the grille cloth. No other maintenance is needed.



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